



Australian Government

MEM08008 Operate and control surface finishing waste treatment process

Release: 1

MEM08008 Operate and control surface finishing waste treatment process

Modification History

Release 1. Supersedes and is equivalent to MEM08008B Operate and control surface finishing waste treatment process

Application

This unit of competency defines the skills and knowledge required to treat and purify metal finishing effluent waters which typically contain cyanides, hexavalent chromium, heavy metal cations, certain anions and greases using appropriate pre-determined waste treatment processes.

Where the interpretation of technical drawings is required unit MEM09002 Interpret technical drawing should also be selected.

Where the selection and use of engineering measurement is required unit MEM12023 Perform engineering measurements should also be selected.

Where the selection and use of tools is required unit MEM18001 Use hand tools and unit MEM18002 Use power tools/hand held operations, should also be selected as appropriate.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Band: A

Unit Weight: 3

Pre-requisite Unit

MEM11011	Undertake manual handling
MEM13003	Work safely with industrial chemicals and materials
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information

Competency Field

Surface finishing

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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|---|---|-----|---|
| 1 | Determine job requirements | 1.1 | Follow standard operating procedures (SOPs) |
| | | 1.2 | Comply with work health and safety (WHS) requirements at all times |
| | | 1.3 | Use appropriate personal protective equipment (PPE) in accordance with SOPs |
| | | 1.4 | Identify job requirements from specifications, job sheets or work instructions |
| | | | |
| 2 | Load waste product | 2.1 | Obtain waste from production process via established procedures |
| | | 2.2 | Load waste in accordance with standard operating procedures for waste/effluent |
| | | | |
| 3 | Monitor effluent water treatment process | 3.1 | Monitor all process parameters and record to identify waste/effluent |
| | | 3.2 | Check recording devices for correct/continuous operation |
| | | | |
| 4 | Adjust process | 4.1 | Apply knowledge of waste treatment processes in determining appropriate adjustments |
| | | 4.2 | Check process parameters to ensure they remain within specified limits |
| | | 4.3 | Make all adjustments to accord with regulatory requirements regarding waste |
| | | 4.4 | Undertake appropriate corrective action in the event of any mechanical failure |

Foundation Skills

This section describes those required skills (reading, writing, oral communication and numeracy) that are essential to workplace performance in this unit of competency.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, accessibility of the item, and local industry and regional contexts) are included.

Waste/effluent includes one (1) or more of the following:

- rinse waters
- spent solutions
- spills
- leaks

Recording devices include one (1) or more of the following:

- pH meter
- oxidising/reduction/potential probes (redox)
- flow rate

Waste treatment processes include one (1) or more of the following:

- chemical treatments
- neutralisation
- metal precipitation
- solid separation (gravity, centrifuging)
- oxidation
- reduction
- grease entrapment
- ion exchange
- reverse osmosis
- gas scrubbing

Process parameters include one (1) or more of the following:

- solution flow
- pH
- redox (oxidising /reduction/potential) which typically contain cyanides, hexavalent chromium, heavy metal cations, certain anions and greases

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>